

AMENDMENTS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Presently amended) An isolated antimicrobial peptide comprising the amino acid sequence: MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRC AVL SCLPKEEQI GKCSTRGRKCCRRKK (SEQ ID NO: 2), wherein said antimicrobial peptide is contained in a pharmaceutical composition formulated for topical administration.
2. (Canceled) The antimicrobial peptide of claim 1, wherein said antimicrobial peptide is contained within a pharmaceutically acceptable composition.
3. (Presently amended) The antimicrobial peptide of claim 2~~1~~, wherein said pharmaceutically acceptable composition includes a pharmaceutically acceptable carrier.
4. (Presently amended) The antimicrobial peptide of claim 2~~1~~, wherein said pharmaceutical composition is formulated for topical administration.
5. (Canceled) The antimicrobial peptide of claim 2, wherein said pharmaceutical composition is formulated for oral administration.
6. (Canceled) The antimicrobial peptide of claim 2, wherein said pharmaceutical composition is formulated for parenteral administration.
7. (Canceled) The antimicrobial peptide of claim 6, wherein said pharmaceutical composition is formulated for administration by injection.
8. (Canceled) The antimicrobial peptide of claim 6, wherein said pharmaceutical composition is formulated for administration by inhalation.

9. (Canceled) A beta defensin encoding nucleic acid molecule isolated from other coding sequences, said nucleic acid molecule encoding a peptide comprising the amino acid sequence: MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRC AVLSCLPKEEQIGKCSTRGR KCCRRKK (SEQ ID NO: 2).

10. (Canceled) The nucleic acid molecule of claim 9, wherein said nucleic acid is incorporated into a vector.

11. (Presently amended) A method of inhibiting growth of a microbe comprising introducing into an environment an antimicrobial peptide comprising the amino acid sequence: MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRC AVLSCLPKEEQIGKCSTRGR KCCRRKK (SEQ ID NO: 2), wherein said antimicrobial peptide is contained in a pharmaceutical composition formulated for topical administration.

12. (Original) The method of claim 11, wherein said peptide is introduced in a composition capable of sustaining the antimicrobial properties of said peptide in said environment.

13. (Canceled) The method of claim 12, wherein said antimicrobial peptide is delivered in a pharmaceutical composition.

14. (Original) The method of claim 11, further comprising introducing an additional antimicrobial agent into said environment.

15. (Original) The method of claim 14, wherein said antimicrobial peptide is introduced before said additional antimicrobial agent.

16. (Original) The method of claim 14, wherein said antimicrobial peptide and said additional antimicrobial agent are introduced concurrently.

17. (Original) The method of claim 14, wherein said antimicrobial peptide is introduced after said additional antimicrobial agent.

18. (Original) The method of claim 14, wherein said additional antimicrobial agent is selected from the group consisting of a protein synthesis inhibitor, a cell wall growth inhibitor, a cell membrane synthesis inhibitor, a nucleic acid synthesis inhibitor, and a competitive inhibitor.

19. (Presently amended) A method of inhibiting growth of a microbe in a host, comprising administering to said host an antimicrobial peptide comprising the amino acid sequence: MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRC AVL SCLPK EEQIGKCSTRGR KCCRRKK (SEQ ID NO: 2), wherein said antimicrobial peptide is contained in a pharmaceutical composition formulated for topical administration.

20. (Original) The method of claim 19, further comprising administering an additional antimicrobial agent.

21. (Original) The method of claim 20, wherein said antimicrobial peptide is administered before said additional antimicrobial agent.

22. (Original) The method of claim 20, wherein said antimicrobial peptide and said additional antimicrobial agent are administered concurrently.

23. (Original) The method of claim 20, wherein said antimicrobial peptide is administered after said additional antimicrobial agent.

24. (Original) The method of claim 20 wherein said additional antimicrobial agent is selected from the group consisting of a protein synthesis inhibitor, a cell wall growth inhibitor, a cell membrane synthesis inhibitor, a nucleic acid synthesis inhibitor, and a competitive inhibitor.

25. (Canceled) A kit comprising an antimicrobial peptide, wherein said peptide comprises the amino acid sequence: MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRC AVL SCLPK EEQIGKCSTRGRKCCRRKK (SEQ ID NO: 2).

26. (Canceled) The kit of claim 25, further comprising an additional antimicrobial agent.
27. (Canceled) The kit of claim 26, wherein said second antimicrobial agent is selected from the group consisting of a protein synthesis inhibitor, a cell wall growth inhibitor, a cell membrane synthesis inhibitor, a nucleic acid synthesis inhibitor, and a competitive inhibitor.
28. (Presently amended) An isolated antimicrobial peptide comprising the amino acid sequence: TLQKYYCRVRGGRC AVL SCLPKEEQIGKCSTRGRKCCRRKK (SEQ ID NO: 3), wherein said antimicrobial peptide is contained in a pharmaceutical composition formulated for topical administration.
29. (Original) The antimicrobial peptide of claim 28, wherein said antimicrobial peptide comprises the amino acid sequence: GIINTLQKYYCRVRGGRC AVL SCLPKEEQIGKCSTRGRKCCRRKK (SEQ ID NO: 4).
30. (Canceled) The antimicrobial peptide of claim 28, wherein said antimicrobial peptide is contained within a pharmaceutically acceptable composition.
31. (Presently amended) The antimicrobial peptide of claim ~~30~~28, wherein said pharmaceutically acceptable composition includes a pharmaceutically acceptable carrier.
32. (Canceled) The antimicrobial peptide of claim 29, wherein said pharmaceutical composition is formulated for topical administration.
33. (Canceled) The antimicrobial peptide of claim 29, wherein said pharmaceutical composition is formulated for oral administration.
34. (Canceled) The antimicrobial peptide of claim 29, wherein said pharmaceutical composition is formulated for parenteral administration.

35. (Canceled) The antimicrobial peptide of claim 34, wherein said pharmaceutical composition is formulated for administration by injection.
36. (Canceled) The antimicrobial peptide of claim 34, wherein said pharmaceutical composition is formulated for administration by inhalation.
37. (Canceled) A beta defensin encoding nucleic acid molecule isolated substantially away from other coding sequences, said nucleic acid molecule encoding a peptide comprising the amino acid sequence: TLQKYYCRVRGGRC AVL SCLPKEEQIGKCSTRGRKCCRRKK (SEQ ID NO: 3).
38. (Canceled) The nucleic acid molecule of claim 37, wherein said nucleic acid is incorporated into a vector.
39. (Canceled) A method of inhibiting growth of a microbe comprising introducing into an environment an antimicrobial peptide comprising the amino acid sequence: TLQKYYCRVRGGRC AVL SCLPKEEQIGKCSTRGRKCCRRKK (SEQ ID NO: 3).
40. (Canceled) The method of claim 39, wherein said peptide is introduced in a composition capable of sustaining the antimicrobial properties of said peptide in said environment.
41. (Canceled) The method of claim 40, wherein said antimicrobial peptide is delivered in a pharmaceutical composition.
42. (Canceled) The method of claim 39, further comprising introducing an additional antimicrobial agent into said environment.
43. (Canceled) The method of claim 42, wherein said antimicrobial peptide is introduced before said additional antimicrobial agent.

44. (Canceled) The method of claim 43, wherein said antimicrobial peptide and said additional antimicrobial agent are introduced concurrently.

45. (Canceled) The method of claim 43, wherein said antimicrobial peptide is introduced after said additional antimicrobial agent.

46. (Canceled) The method of claim 43, wherein said additional antimicrobial agent is selected from the group consisting of a protein synthesis inhibitor, a cell wall growth inhibitor, a cell membrane synthesis inhibitor, a nucleic acid synthesis inhibitor, and a competitive inhibitor.

47. (Canceled) A method of inhibiting growth of a microbe in a host, comprising administering to said host an antimicrobial peptide comprising the amino acid sequence: TLQKYYCRVRGGRC AVLSC LPKEEQIGKCSTRGRKCCRRKK (SEQ ID NO: 3).

48. (Canceled) The method of claim 47, further comprising administering an additional antimicrobial agent.

49. (Canceled) The method of claim 48, wherein said antimicrobial peptide is administered before said additional antimicrobial agent.

50. (Canceled) The method of claim 48, wherein said antimicrobial peptide and said additional antimicrobial agent are administered concurrently.

51. (Canceled) The method of claim 48, wherein said antimicrobial peptide is administered after said additional antimicrobial agent.

52. (Canceled) The method of claim 48, wherein said additional antimicrobial agent is selected from the group consisting of a protein synthesis inhibitor, a cell wall growth inhibitor, a cell membrane synthesis inhibitor, a nucleic acid synthesis inhibitor, and a competitive inhibitor.

53. (Canceled) A kit comprising an antimicrobial peptide, wherein said peptide comprises the amino acid sequence: TLQKYYCRVRGGRC AVLSCLPKEEQIGKCSTRGRKCCRRKK (SEQ ID NO: 3).

54. (Canceled) The kit of claim 53, further comprising an additional antimicrobial agent.

55. (Canceled) The kit of claim 54, wherein said additional antimicrobial agent is selected from the group consisting of a protein synthesis inhibitor, a cell wall growth inhibitor, a cell membrane synthesis inhibitor, a nucleic acid synthesis inhibitor, and a competitive inhibitor.